



1ST SEMESTER 2020/2021

PAGE 1 OF 3

**UNIVERSITY OF ESWATINI
FINAL EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE YEAR
4**

COURSE CODE: HRT401

TITLE OF PAPER: SEED SCIENCE

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS

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INVIGILATOR**

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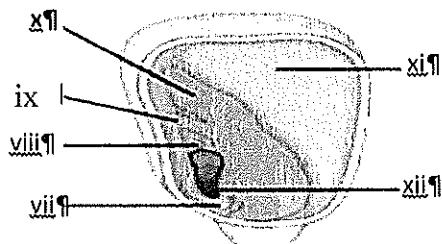
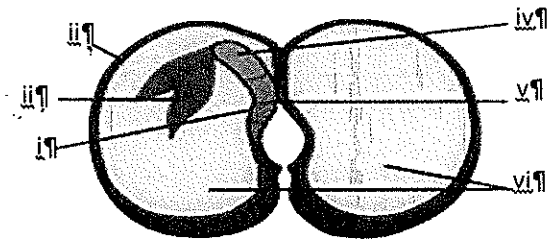
Question 1

- a) Explain the following terminologies:
 - i) Hypogeal germination [3]
 - ii) Epigeal germination [3]
 - iii) Emasculation [3]
 - iv) Determinate flowering [3]
 - v) Indeterminate flowering [3]
- b) Differentiate between Heterospory and Endospory [10]

(25 marks)

Question 2

- a) Briefly explain what a seed is. (3)
- b) Label the seed diagrams below: (12)



- c) List 5 characteristics of a good quality vegetable seed. (10)

(25 marks)

Question 3

- a) Give and discuss the three stage model of seed germination. (15)
- b) Explain how the following factors affect seed development: (10)
 - i) Oxygen
 - ii) Temperature

(25 marks)**Question 4**

- a) Give and explain five (5) methods of dormancy breaking.

(25 marks)**Question 5**

- a) What is the significance of seed certification? (5)
- b) Explain the following sources and classes of certified seed:
 - i) Breeder seed (5)
 - ii) Foundation seed (5)
 - iii) Registered seed (5)
 - iv) Certified seed (5)

(25 marks)